Quick Draw Electronics

Shooting Sports Timer II User Manual

Model TS1001

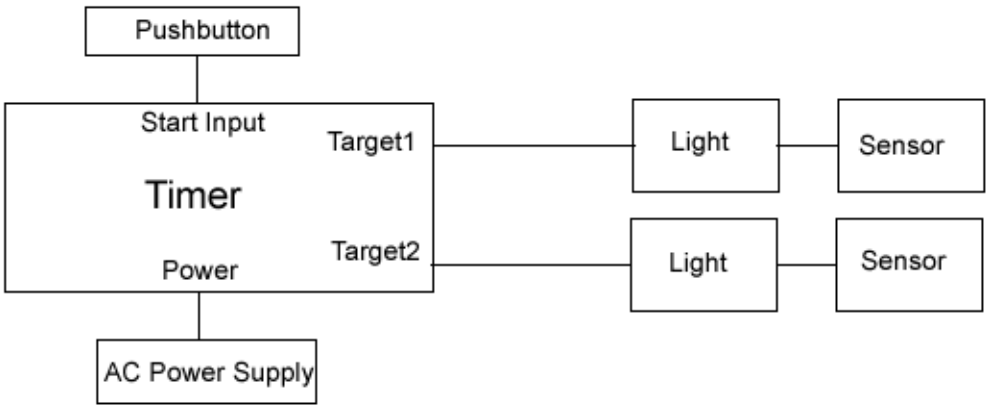
Rev. F Feb 2014

WELCOME TO THE **QUICKDRAW ELECTRONICS SHOOTING SPORT TIMER**.

THE BASIC SYSTEM CONSISTS OF;

2 IMPACT SENSORS
2 LIGHT ASSEMBLIES
1 TIMER BOX
2 TIMER TO LIGHT CABLES
2 SENSOR TO LIGHT CABLES
1 PUSHBUTTON
1 POWER CORD

SETUP



Single Timer Setup

<u>SET UP IS QUICK AND EASY</u>.

START BY ATTACHING AN IMPACT SENSOR AND A LIGHT ASSEMBLY TO THE BACK OF EACH TARGET. THE LIGHTS AND SENSORS ARE HELD ONTO THE TARGET BY STRONG RARE EARTH MAGNETS. THE LIGHT ENCLOSURE HAS THE MAGNETS MOUNTED ON THE REAR. IT IS RECOMMENDED THAT AN “L” BRACKET BE ATTACHED TO THE REAR OF THE TARGET BEHIND THE LIGHT HOLE.
THE SENSOR PROTRUDES FROM THE FRONT OF THE SENSOR ENCLOSURE BUT IS SPRING LOADED SO THAT IT RETRACTS INTO THE SENSOR ENCLOSURE AS NECESSARY TO MAKE FIRM CONTACT WITH THE REAR OF THE TARGET. MAKE SURE THE LIGHTS ARE CLEARLY CENTERED ON THE TARGET WINDOW. PLUG IN THE SENSOR TO LIGHT CABLE TO EACH UNIT. PLUG ONE END OF THE LIGHT TO TIMER CABLE INTO THE LIGHT BOX – PLUG IN THE OTHER END TO THE BACK OF THE TIMER BOX. PLUG IN THE PUSHBUTTON JACK TO THE BACK OF THE TIMER BOX. PLUG IN THE POWER CORD TO THE POWER JACK ON THE BACK OF THE TIMER BOX – PLUG INTO POWER SOURCE. YOU ARE READY TO START!

MODES

NORMAL MODE

WHEN THE UNIT IS PLUGGED IN, IT WILL GO THROUGH A SELF TEST PROCESS. THE DIGITAL DISPLAY WILL RUN UNTIL IT REACHES 9.999. DURING THIS CYCLE TIME THE LIGHT BOXES WILL BE CONSTANTLY LIT. WHEN THE CYCLE IS COMPLETE THE LIGHTS WILL FLASH BRIEFLY AND THEN GO OUT. AT THIS POINT THE SYSTEM IS READY AND IN THE NORMAL MODE. TO START THE TIMER RANDOM DELAY, PRESS THE PUSHBUTTON AND RELEASE (THE DISPLAY WILL READ '0.000). WHEN THE LIGHT ILLUMINATES THE TIMER STARTS. A HIT ON THE TARGET WILL STOP THE TIMER. IF YOU ARE SHOOTING WITH A SINGLE TARGET A HIT WILL CAUSE YOUR LIGHT TO GO OUT, IF YOUR ARE SHOOTING WITH TWO TARGETS THE WINNING TARGET LIGHT WILL FLASH. TO RESTART THE SYSTEM – PRESS THE PUSHBUTTON.

IN THIS MODE, THE START OUTPUT SENDS A PULSE TO THE START INPUT OF THE NEXT TIMER IF ATTACHED. THIS PULSE IS SENT OUT BETWEEN 0 AND 3 SECONDS AFTER THE PUSHBUTTON IS RELEASED.

PRACTICE MODE

TO TOGGLE TO THE PRACTICE MODE – HOLD THE PUSHBUTTON DOWN FOR 12 SECONDS – THE DISPLAY WILL READ 'P.PPP'. A DELAY BEGINS AND THE TIMER IS STARTED WHEN BOTH TARGETS ARE HIT OR 10 SECONDS RUNS OUT – THE SYSTEM WILL THEN SOUND A 'BEEP' (THIS WOULD BE THE SHOOTER SET SIGNAL) – AFTER A RANDOM DELAY, THE LIGHT WILL ILLUMINATE AND THE TIMER WILL BEGIN AGAIN. A HIT ON THE TARGET WILL STOP THE TIMER – OTHERWISE THE TIMER WILL RUN TO 9.999 AND START THE CYCLY OVER AGAIN. THE RECYCLE DELAY DEPENDES ON THE NUMBER OF LIGHTS PLUGGED INTO THE TIMER. IF BOTH LIGHTS ARE PLUGGED IN, THE TIMER WAITS 16 SECONDS AND THEN RESTARTS THE CYCLE. IF ONE LIGHT IS PLUGGED IN THEN THE TIMER WAITS 4 SECONDS BEFORE STARTING THE CYCLE.

IN THIS MODE, THE START OUTPUT SENDS A PULSE TO THE START INPUT OF THE NEXT TIMER, IF ATTACHED. THIS PULSE IS SENT OUT BETWEEN 0 AND 3 SECONDS AFTER THE PUSHBUTTON IS RELEASED.

TO EXIT PRACTICE MODE AND GO TO SLAVE MODE, PRESS THE PUSHBUTTON FOR 12 SECONDS (UNTIL THE DISPLAY READS S.SSS).

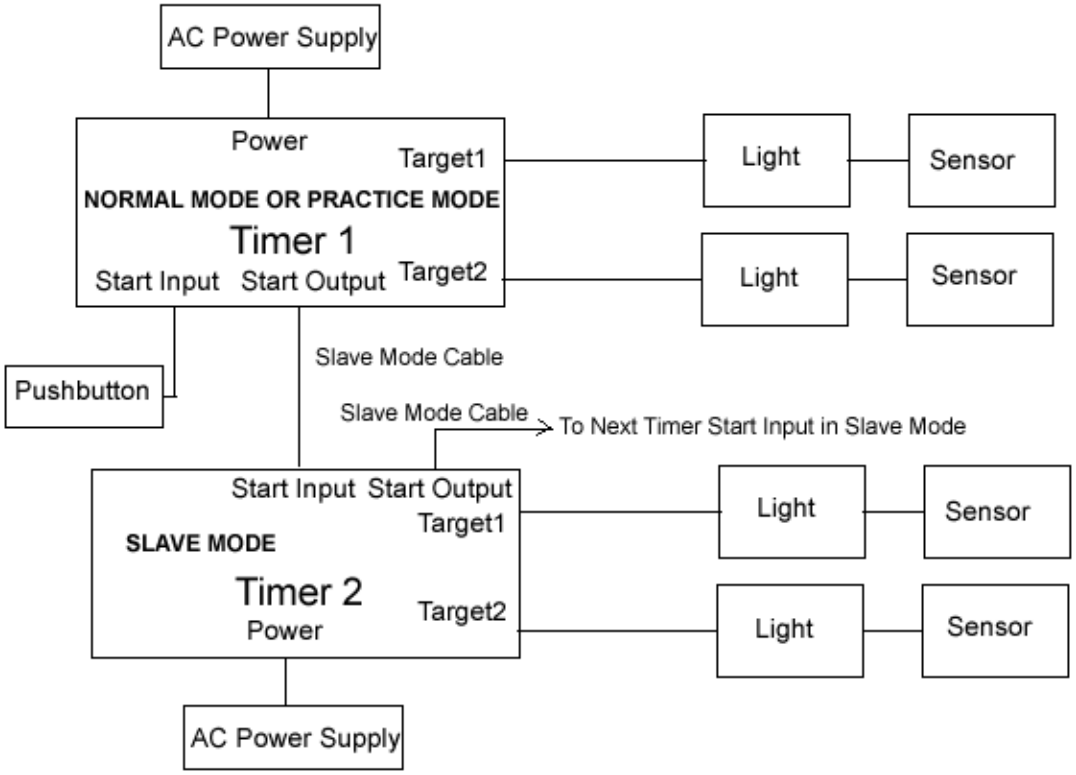
SLAVE MODE

THE SLAVE MODE IS USED IN MULTI-TIMER SETUPS. WHEN THE START SIGNAL IS SENSED, THE TIMER STARTS A 2 SECOND DELAY AFTER WHICH THE TIME IS STARTED AND THE LIGHTS ARE LIT. THE MASTER TIMER (NORMAL MODE OR PRACTICE MODE) PROVIDES THE RANDOM 0-3 SECOND DELAY BEFORE STARTING THE SLAVE TIMER. (SEE COMPETITION SETUP)

THE SLAVE INPUT IS TRANSFERRED TO THE SLAVE OUTPUT IN THE SLAVE MODE. THIS ELIMINATES THE NEED FOR A TEE CONNECTOR OUTSIDE OF THE TIMER AS WAS NECESSARY WITH THE SHOOTING SPORTS TIMER MODEL ONE. IF A SHOOTING SPORTS TIMER MODEL ONE IS USED IN SLAVE MODE, A TEE CONNECTOR IS NEEDED TO TRANSFER THE START PULSE TO THE NEXT TIMER IN LINE. THIS TEE IS NOT NEEDED IF THE TIMER MODEL ONE IS USED IN THE LAST POSITION OF THE CHAIN.

THE SHOOTING SPORTS TIMER MODEL TWO CAN BE USED WITH A COMPETITION CONTROLLER IN JUST THE SAME WAY AS THE MODEL ONE. JUST CYCLE THE MODE TO THE SLAVE AND IT WILL BEHAVE AS BEFORE.

TO EXIT SLAVE MODE AND RETURN TO NORMAL MODE, PRESS THE PUSHBUTTON FOR 12 SECONDS (UNTIL DISPLAY READS 0.000).



Multi Timer Setup

MULTI-TIMER COMPETITION MODE

THE MULTI-TIMER COMPETITION MODE SETUP IS SHOWN IN THE ABOVE DIAGRAM. THIS IS USED WHEN TWO OR MORE TIMERS ARE USED TOGETHER. THE SLAVE TIMER IS PUT INTO SLAVE MODE BY UNPLUGGING THE CABLE FROM THE START INPUT AND PLUGGING IN THE PUSHBUTTON TO THE START INPUT. THE USER THEN GOES THROUGH THE PROCESS OUTLINED PREVIOUSLY TO PUT THE SLAVE TIMER INTO THE SLAVE MODE. AFTER ALL SLAVE TIMERS ARE IN THE SLAVE MODE, THE CABLES CONNECTING THE MASTER TIMER TO THE SLAVE TIMERS ARE RECONNECTED.

BALLOON SWITCH OPERATION

WHEN THE TIMER IS USED WITH A BALLOON SWITCH, THE USER INSTALLS A BALLOON IN THE BALLOON TARGET AND THEN PRESSES THE START BUTTON. IF TWO BALLOON TARGETS ARE USED, THE WINNERS LIGHT WILL FLASH. A NEW BALLOON MUST BE INSTALLED IN THE BALLOON TARGET AFTER EACH SHOT. IF A BALLOON IS NOT PRESENT, THE TIMER ASSUMES THAT THE TARGET IS NOT PRESENT AND WILL NOT FLASH THE LIGHTS DECLARING A WINNER. THE BURSTING OF THE BALLOON SIGNALS THE TIMER TO STOP THE TIME.

THE TIMER FOR BALLOON OPERATION IS THE SAME AS FOR IMPACT SENSOR OPERATION. THE BALLOON SYSTEM CAN BE USED WITH THE NORMAL IMPACT LIGHTS AND SENSORS SIMPLY BY PURCHASING THE ADDITIONAL PARTS.

OPTIONAL EQUIPMENT

THE OPTIONAL DC POWER CABLE MAY BE USED WITH AN AUXILLARY POWER UNIT/ OR BATTERY. ONE EXAMPLE OF A PORTABLE BATTERY CAN BE FOUND AT: HTTP://WWW.HARBORFREIGHT.COM/CPI/CTAF/DISPLAYITEM.TAF?ITEMNUMBER=38391

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WARRANTY

THE TIMER IS WARRENTEED AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP TO THE ORIGINAL PURCHASER FOR ONE YEAR FROM DATE OF PURCHASE WHEN OPERATED UNDER NORMAL CONDITIONS. THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT OF ALL OR PART OF THE TIMER SYSTEM.
THE PURCHASE IS AUTOMATICALLY REGISTERED WITH QUICK DRAW ELECTRONICS UPON PURCHASE. NO ADDITIONAL WARRANTY REGISTRATION IS REQUIRED.

NOTES: THE IMPACT SENSORS HAVE BEEN DESIGNED, CALIBRATED, AND TESTED TO WORK WITH THE QUICK DRAW ELECTRONICS TARGETS. SINCE WE DO NOT HAVE CONTROL OF THE DESIGN OF USER PROVIDED TARGETS, WE CAN NOT GUARANTY THE RELIABILITY OF THE IMPACT SENSORS ON USER PROVIDED TARGETS. OUR WARRANTY ON THE IMPACT SENSOR IS VALID ONLY WHEN USED WITH THE QUICK DRAW ELECTRONICS TARGETS.

SOME USERS HAVE EXPERIENCED PROBLEMS WITH IMPACT SENSOR RELIABILITY WITH THIN STEEL TARGET MATERIAL. WE RECOMMEND A MINIMUM THICKNESS OF 10 GAUGE (0.134) STEEL MATERIAL BE USED IN THE CONSTRUCTION OF TARGETS.

THE COVERING OVER THE LCD DISPLAY IS FLEXABLE AND CAN BE DEFORMED BY FINGER PRESSURE. THE MATERIAL WILL RECOVER FROM A SLIGHT DEFORMATION BY ITSELF.
IF EXCESSIVE PRESSURE IS APPLIED TO THE COVERING, IT CAN ADHERE ITSELF TO THE DISPLAY. THIS WILL NOT AFFECT THE OPERATION OF THE TIMER SINCE THE COVERING IS ONLY FOR DUST PROTECTION. **CAUTION IS URGED WHEN HANDLING THE TIMER**.